To: Eric Hornberger, Chairman, Loudoun County Public School Board
Jill Turgeon, Vice-Chairman, Loudoun County Public School Board

CC: Loudoun County Board of Supervisors

From: Loudoun County Government Reform Commission

Re: Observations and recommendations concerning: a) School costs relative to economic benchmarks in Loudoun County Public Schools and b) Student to Employee ratio

Date: [SUBJECT TO LCGRC APPROVAL]

Pursuant to discussions of the Joint Board of Supervisors/School Board Committee as well as our meeting with the leadership of the School Board, we are pleased to provide this memorandum to you on behalf of the Loudoun County Government Reform Commission for your consideration. We present this information in support of the School Board's efforts to review overall school and related costs and to chart a constructive course forward for our County. As well, we offer our assistance if we can be helpful in following up on any matters addressed in this memorandum, though we respectfully defer to you in this regard as the elected representatives of the citizenry.

We also note that this particular memorandum, based on its audience, covers observations related to administration of the public school system. One should not conclude, however, that we have no similar observations with regard to the County government generally. On the contrary, we have already identified areas within the County that require in-depth research and assessment and we have divided ourselves into subgroups for this purpose.

Executive Summary

We requested certain information from County government staff in order to understand the context of the cost of local government, allocated between the functions of the general Loudoun County government ("County") and Loudoun County Public School system ("School") over time. For your reference, attached you will find our original information requests and the responses to those requests. Our objective was two-fold:

- To put the cost of government over time into a context relative to measures of taxable wealth and productivity; and

- Having established such a benchmark, to understand the main drivers of the change in the relative cost of government over time.

Based on the data presented by County staff, we draw two main conclusions:

- The cost of the School function has shown a tendency since FY 2007 to increase out of proportion to both economic activity and taxable wealth. Regardless of the reasons, we believe that this fact should be part of the public debate and awareness.

- The main driver of this tendency appears to be personnel costs that have increased out of proportion to student enrollment.

We respectfully suggest that a School cost structure without a proportionate relationship to some measure of economic activity or taxable wealth, or one which defies economies of scale by increasing employee count relative to student enrollment, raises questions as to whether the School cost structure delivers the best possible service relative to the cost of that service.

Therefore, we commend two ideas to you for consideration:

1. The School budget could be indexed to an objective standard such as local productivity, local taxable wealth, or both in a fashion that keeps spending in proportion to changes in economic wherewithal to pay for such spending; and

2. The School Board ought to be provided with a clear accounting for growth in personnel relative to enrollment. Further, to the degree that such growth has been required by State or Federal mandates then the citizens of Loudoun should be educated as to the cost of such mandates as they pertain to the need to raise the relative cost of public education over time. This is to say that citizens should know just which "government" is responsible for increased costs.

I. Cost of School Functions Over Time

As a method to create a benchmark for measuring the cost of government over time we requested the following data sets from FY 2000 through FY 2012:

a) County and School budgets;

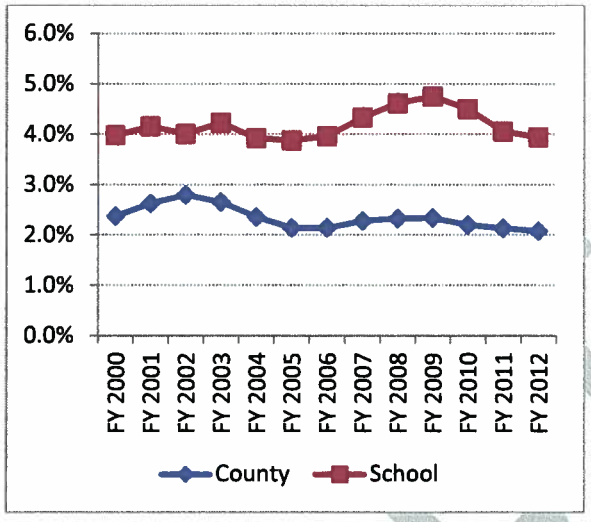
b) Gross County Product (measurement of value of all goods and services produced);

c) Total Taxable Assessed Value (measurement of wealth available to be taxed); and

d) Percentage of the components of a) as compared to b) and c).

The raw data can be found in Attachment 2 of County staff's response to our questions. Below you will find two line graphs illustrating the data and our commentary on each:

Operating Budgets as a Percent of Gross County Product (Real & Personal)



A. **Analysis of Operating Budget as a % of Gross County Product (GCP)**

It is notable that the School costs remained relatively consistent as a function of GCP in the period FY 2000 through FY 2006, trending in the range of 4%. If we consider this as a baseline, showing a reasonably consistent pattern of expenditure relative to productivity, then the period of FY 2007 through FY 2011 bears scrutiny based on its divergence from the prior trend.

This is what we observed:

- From FY 2007 to FY 2009 we see expenditures ramp up dramatically relative to productivity. To put absolute numbers against this relative change, Attachment 2 shows an increase of $218 million or 40% in the School budget during this period.

- As we were in the teeth of recession during this period, one might expect that GCP declined, contributing to the relative increase, but that expectation would be wrong.
    - On the contrary, Attachment 2 shows an increase of $2.34 billion, or 17% during this same period.
    - From FY 2003 to FY 2006 GCP grew by 61%. In the same time period, the School budget grew by 51%.
    - It appears that the main driver of the relative explosion of School costs in FY 2007 to FY 2009 was spending increases out of proportion to continued economic growth, as opposed to economic free fall.

- Once this disproportionate increase occurred in FY 2007 to FY 2009, it took two years (through FY 2011) to bring relative costs back in line with historical levels relative to productivity.

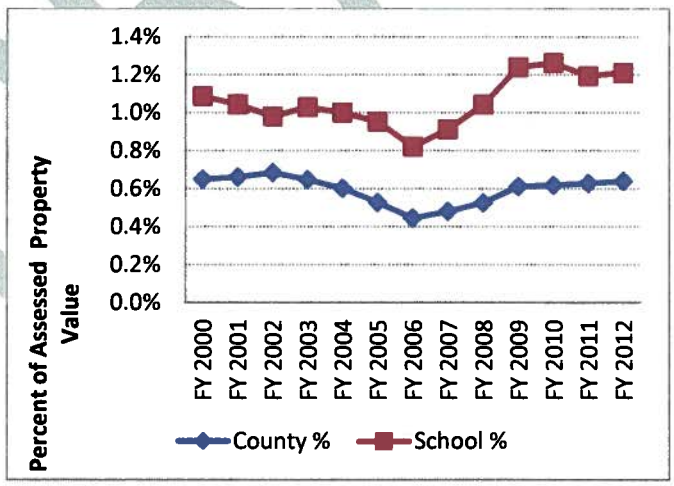
- Again, this appears to have occurred mainly as a result of spending decisions, rather than overall economic factors.
    - GCP increased by 11% in FY 2010 to FY 2011 whereas spending fell by 4%.
    - While one might be tempted to conclude that Loudoun "grew" its way back to the trend spending rate, as the economy was improving in that time frame, this would be incorrect since GCP growth actually slowed.

We conclude the following, therefore:

- The School budget departed from historical norms relative to GCP in the FY 2007 to FY 2009 time frame, based on continued spending increases out of proportion to GCP increases.

- Such a divergence takes significant time and effort to reverse, as evidenced by the fact that only spending cuts sufficed to do so in the FY 2010 to FY 2011 time frame.

Operating Budgets as a Percent of Assessed Property Value (APV)



A. Analysis of Operating Budget as Percentage of Assessed Property Value (APV)

The APV analysis shows a similar result to that of the GCP analysis, but perhaps more starkly. School costs remained relatively consistent as a function of APV in the period of FY 2000

through FY 2006, trending in the range of 1%, but generally tending to decrease slowly. If we consider this as a baseline, showing reasonably consistent pattern of expenditure relative to productivity, then the period of FY 2006 through FY 2011 bears scrutiny based on its divergence from the prior trend.

- In FY 2006 we see expenditures drop substantially relative to taxable wealth. As Attachment 2 shows, this represented a dramatic run up in property values prior to the recession – a 28% increase year over year in FY 2006. Therefore, despite the fact that School spending increased by 18%, relative spending dropped.

- From FY 2007 to FY 2009 we see the same phenomenon observed above under the GCP analysis, specifically a dramatic increase in the relative School spending level compared to an economic base, though in this case the measure is taxable wealth as opposed to economic productivity.

- The expectation that a decrease in the economic benchmark (APV in this case) drove this result would only be partially correct.
    - On the contrary, Attachment 2 shows a FY 2008 to FY 2009 increase in APV of $1.8 billion, or 2%. The rate of growth slowed to near zero, but we did not actually face a retrenchment.

- In the period of FY 2009 to FY 2010 we experienced a dramatic retrenchment of 13% from the FY 2007 to FY 2008 peak, followed by a partial rebound in FY 2012 to 92% of the peak APV. However, throughout the entire FY 2009 to FY 2012 time frame, the APV remained from 19% to 27% above the FY 2005 level.

- The apparent conclusion is that, far from seeing a real estate bubble that burst, we saw only a partial deflation that resulted in a durable wealth increase of at least 19% during the worst of the recession.

- Further, in contrast to the analysis of GCP above, the cost of the Schools remains substantially above historical levels relative to APV, despite the fact that the APV also remains well above historical levels.

We conclude the following, therefore:

- The School budget departed from historical norms relative to GCP in the FY 2007 to FY 2009 time frame, based on continued spending increases out of proportion to APV increases.

- School spending relative to APV remains above historical norms, based on the fact that the increase in APV (culminating in the recession, which proved its lack of sustainability) created a basis for spending that has not been unwound even though the change in APV has long since retreated from pre-recession growth.

B. Conclusions and Recommendation from Analysis in I.A and I.B

- The data provided to the Commission shows a significant shift in the cost trend compared to the economic base, whether measured by productivity (GCP) or taxable wealth (APV).

- The main driver of the shift was spending behavior, as opposed to economic free fall during the recession. We recognize that both measures of economic base flattened or even retrenched, but it is important to eliminate any notion that our economic base eroded to pre-recession levels.

- The School embarked on spending behavior in FY 2007 to FY 2009 that was out of proportion to the underlying economic base of activity and, while the GCP measure has returned to historical levels, we remain far above historical levels by the APV measure.

- We suggest that the School ought to exist within a particular economic context, specifically what a cost relative to the ability to pay. We submit that historical norms would indicate that the School performed in the past at a certain level of cost relative to the economic base and could, therefore, be expected to perform at such a relative level of cost in the future.

- **The Government Reform Commission recommends the adoption of benchmarking in the Loudoun County Public School budget process that takes into account comparison of costs to the economic base as measured by an objective standard such as GCP, ACV, or both.**

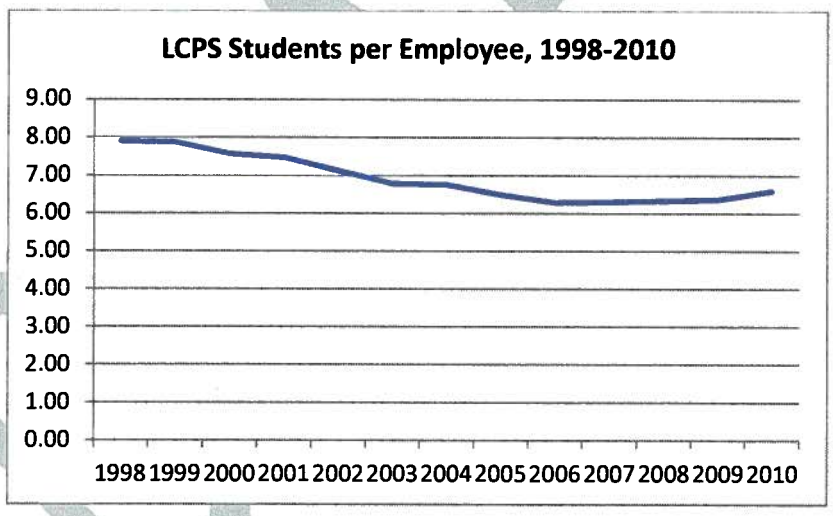
II. Growth in Personnel Relative to Student Enrollment

In reviewing the County budget we noted the chart showing the long term growth of County and School employees per 1,000 County residents. We noted that the number of School employees per 1,000 residents had increased by approximately 50% since FY 2000. We recognized that this statistic would be misleading as to the services required of the School so we requested data concerning School employment as a function of enrolled students. County staff supplied that data through FY 2010 and you will find that reply attached for your reference.

We arranged the data to show the number of students per employee as follows:

LCPS Students per Employee Ratio 1998 - 2010

FY	LCPS Employees	LCPS Students	Students per Employee
1998	3,010	23,782	7.90
1999	3,314	26,091	7.87
2000	3,801	28,787	7.57
2001	4,253	31,804	7.48
2002	4,852	34,589	7.13
2003	5,533	37,532	6.78
2004	6,026	40,751	6.76
2005	6,779	44,014	6.49
2006	7,525	47,361	6.29
2007	7,999	50,478	6.31
2008	8,526	54,047	6.34
2009	8,951	57,009	6.37
2010	9,105	60,096	6.60



The data shows a significant increase in School employment relative to student enrollment in the periods FY 2001 to FY 2010. In round numbers, assuming for example an average cost per employee of $60,000, this change in ratio costs approximately $90 million per year – i.e., if the 1998 ratio had been maintained through 2010.

We understand that State and Federal mandates during this period have impacted changes in School staffing. We think it would be very interesting, therefore, to identify the nature of the changes in the composition of staff behind this overall change in ratio. What positions have resulted in the increase? How do mandates relate to these positions? How is Loudoun better served by the addition of these positions, considering some or all of those monies could have been allocated elsewhere?

This leads us to a second conclusion:

The Government Reform Commission recommends the Superintendent of Loudoun County Public Schools provide the School Board with a clear accounting for the growth of employment relative to student enrollment, with a mapping of those positions to State or Federal mandates. If such mandates have driven up the cost of the School system then the citizens of Loudoun County deserve the opportunity to understand which mandates have done so and what can or cannot be done about this result.

For your reference we attach a paper by the Allegheny Institute written in August 2010 that observes a similar phenomenon in the Pittsburgh Schools. We think that the grid layout they use to categorize employment growth by type of employee is a good starting point for a similar study in Loudoun.

Also for your reference, we attach a paper by Teresa Morisi of the Bureau of Labor Statistics. Though dated (1994) it shows that the declining ratio of students to employees has been a long-term national phenomenon.

In closing, we thank you for your attention to these matters and we offer our assistance with regard to any follow-up from these observations and recommendations.

DEPARTMENT OF MANAGEMENT & FINANCIAL SERVICES

MEMORANDUM

DATE: February 24, 2012
TO: Government Reform Commission
FROM: Mark Adams, Director, Management & Financial Services MA
RE: Questions Received from Mr. Hamberger
Cc: Tim Hemstreet, County Administrator
Julie Withrow, Assistant to the County Administrator

Mr. Hamberger posed the following questions to staff. Included are answers to these questions and attachments that relate to these questions.

Question #1- Since 1998 the County has maintained a very consistent ratio of about 10 staff per 1,000 residents. One might make the argument that better technology and productivity should result in a reduction of staff to residents, but one has to at least grant that there has not been a relative expansion of staff. By the way, how does this compare to other counties?

Please refer to Attachment 1. This chart shows FTE, Population and Ratio data for Loudoun and selected jurisdictions for the last 5 years. As shown on this chart, Loudoun's FTE to Population ratio has remained relatively constant over this time period. It is important to note that during this time period demand for many direct services (i.e. benefits for needy individuals/families, public safety, parks and recreation facilities, mental health treatment and referral services) have steadily increased due to both the population increase and the decline of the economy. Loudoun has a significantly lower ratio of FTE to population than several other jurisdictions in the area. Fairfax County's FTE figures include all funds in order to fully represent its spectrum of services in the same manner as Loudoun. Fairfax maintains separate funds for certain functions which are included in Loudoun's General Fund, such as parks and economic development. Fairfax also maintains staff for certain programs that Loudoun does not have, such as an employee retirement fund and programs that are contracted by Loudoun, such as transit. The numbers represented in Attachment 1 cannot be considered a true comparison in every case.

Also important to note are several significant changes in service delivery models as a result of demographic and economic changes. In particular, public safety needs have changed. Over the period in question, the County has transitioned from Fire and EMS operations delivery being based upon an almost exclusively volunteer company model to a "mixed" volunteer and career delivery system with 5/12, 7/12 and 7/24 station responsibilities. In FY 1998 there were only 37 FTE involved in both station staffing and the County's training program (and that was up ten from the previous year). In FY 2012, Operations, EMS and Training are over 430 FTE. In

addition, the County's rapid increase in Office/Commercial/Retail development and employment since FY 98 also increases the daytime demand for public safety services. During this time period the Adult Detention Center was also opened which required Sheriff's Office staffing increases.

Question #2- Contrast this to LCPS. Since 1998 LCPS has increased its staff by about 50% relative to population. In 1998 there were 20 LCPS staff per 1,000 residents. In 2012 there were about 30 per 1,000 residents. How does this match up to the school-aged population? Is the number of staff relatively fixed compared to the school aged population or not? Can you advise on that?

This question has been referred to Loudoun County Public Schools staff to be answered. Information will be provided to the committee when received.

Question #3- How do total government costs (with a breakdown between General and LCPS) relate to economic productivity? Do we have a Gross County Product figure that we can overlay against costs? This would be very enlightening, in my view.

This question is addressed by Attachment 2 which illustrates the long term trend in the relationship between Gross County Product (GCP) and the County/LCPS budget history. The County budget, expressed as a percentage of GCP, peaked in FY 2002 at 2.8%, while LCPS reached a high point of 4.8% in FY 2009. These percentages have both declined, falling to 2.1% for the County and 3.9% for LCPS. The estimates for Loudoun's Gross County Product are supplied by the Moody's Economy.com forecasting service.

Question #4- How do government costs (with a breakdown between General and LCPS) relate to the total taxable base? Putting aside the tax rate itself, do we have an overlay of the assessed value of all property from 1998 (or a 10 year period) to today? It would be very interesting to see this.

Attachment 2 illustrates the long term relationship between the assessed property value to County and LCPS budgets. Budget to property value ratios for both the County and LCPS reached a low in FY 2006. This was due to the housing boom driven 33% increase in combined real and personal property valuation. Since FY 2006, these budget-to-property-value ratios have remained stable at 0.6% and 1.2% for the County and LCPS respectively. Frankly, the real property tax rate is actually a very good measure of inflation adjusted governmental costs in that the Virginia State Constitution mandates that property be valued at 100% of current market. Again, please note that the current budgets have unprecedented levels of public safety spending (as described in question 1 above) and in the rapid increases in the amount of demand placed upon the General Fund to supply debt service funding and the required match to our capital programs. County debt service spending was very low, $24 million in FY 98, compared to $159 million in FY 2012. Debt and capital required 14 cents in funding in FY 98 and over 24 cents in FY 12.

Question #5- How does the total cost of government relate to the funds actually raised by the County? There is a large gap between what we raise in taxes locally and what actually gets spent. It would be very interesting to see this over time. The issue of "government reform" may also involve taking a look at the inflows from the Feds and the Commonwealth - after all the debt behind those Federal dollars will be paid by Loudoun's children.

Attachment 3 describes the long term revenue trend for both the General Government and School budgets. Commonwealth revenues, as a share of County General Fund revenue, declined from FY 2003 (11.8%) through FY 2010 (6.9%) before leveling off in FY 2011 at about 7.4%. This is due in large part to the fact that the majority of our Commonwealth revenues come from a "capped" annual car tax rebate of $48 million. For reference, our total Commonwealth revenue in FY 2012 is $82 million. In addition, the Commonwealth effectively capped our cell phone and telecommunications tax revenue, just as it became one of our fastest growing revenue sources.

Federal revenues play a very small part of County revenue, averaging less than 2% of County General Fund revenue from FY 2003 through FY 2009. Federal Stimulus funding (ARRA), did increase the share to 2.5% in FY 2011, but it has since dropped to under 1% in FY 2012 and FY 2013 (proposed). In terms of all intergovernmental revenue, the County is at a disadvantage due to high wealth and income factors.

As an aside, the County does not directly benefit from increased income or salary levels in the County. At the turn of the last decade, a study was done that showed that adding major economic development projects that attracted higher than average income workers only marginally benefitted the County (depending on the resulting number of school children generated), but was a great boon to State coffers as they collect income taxes. New higher than State average incomes actually had the perverse effect of driving down per child amounts from the State given the "Composite Index" used by the Commonwealth to determine aid.

Overall County General Fund revenues, which support both the County and LCPS, reached peak growth during the period FY 2004-2006. Real property tax rates also fell during the period FY 2004 – 2007, while service demands brought about by rapid population and housing growth lead to increasing demands (for example: a full time career Fire and Rescue service, expansion of the Adult Detention Center, parks and recreation facilities opening), and related demands for general funding support for for Debt Service and Capital projects throughout the County.

The School Revenue Fund also experienced its peak growth period from FY 2004 – FY 2006, but Commonwealth payments represented an increasing share of the School General Fund, increasing from about 22% in FY 2003, to 29% in the FY 2012 Adopted Fiscal Plan. A significant fraction of Commonwealth support has been driven by the rapid growth in school age population.

Federal payments also have not been a large part of the LCPS funding picture, averaging less than 2% of School Fund revenue from FY 2003 – FY 2009. However, in FY 2010 and FY 2011, Federal stimulus money increased the share to 4.9% and 4.2% respectively. The Federal share of revenue found in the FY 2012 Adopted and FY 2013 Proposed LCPS budgets has once again fallen to less than 2%.

Further information can also be found on pages R-3, R-24 and E-21 of the FY 2012 Adopted Fiscal Plan. Page E-21 provides details for non-general fund appropriations which include debt service and capital expenditures. Charts describing the long term real property tax rate history, as well as County and LCPS budgets versus Gross County Product and Taxable Property Values are also provided in the attached workbook.

Question 6- We have three distinct financial management functions: Commissioner of the Revenue, Treasurer, and Assessor. I see that one is a Constitutional Officer. What is the background behind splitting the function three ways? Do you think that this results in duplication of costs?

As Mr. Hemstreet pointed out in his reply to you, the current status of these three functions and the County's Finance Department (Management and Financial Services) is largely driven by our current form of government. In Loudoun's case, the Assessor functions were a part of the Financial Services or Management and Financial Services Department from the late 1980's until the middle of the 2000's.

Question 7- The General Government is 38% of the County side. Of that 70% is four functions: General, IT, Construction/Waste, Financial Services. To me this seems like the biggest piece that can be leveraged by breaking down silos. Do we do a good enough job on the County side of leveraging these functions across all areas of County government? Likely more importantly and more controversially, what (if any) efforts are made to leverage the expenditures of these four departments (comprising about 27% of total County spend) on the LCPS side?

The four internal service departments of County Government work very closely together on their core missions. The General Services Department provides centralized management of utilities, rent, fleet management, stormwater maintenance and the County's capital asset replacement and process. Capital Construction and Waste Management provide management of the County's capital planning and construction process, landfill operations and solid waste recycling and enforcement processes. The Department of Information Technology provides centralized management of the County's computer operations (both mainframe and pc), telephone service and centralized duplicating. Management and Financial Services provides central management of Accounting, Benefits, Budget, Debt, Human Resources, Procurement, Research and Training. In virtually all of the functions described, there are important partnership roles that cross departmental lines on a daily basis. Virtually all of the major product deliveries in these agencies require ongoing support, advice and cooperation from staff teams below the department head level. We can provide many examples of successful

collaborations, if desired. The ongoing purchase and installation of the County's ERP, the strategic team working on Watershed Improvement Planning, the County's Fiscal Impact Committee, and the recent decision to purchase the 801/803 Sycolin Road buildings with offsetting rent payments, are all examples of that cooperation.

In terms of the Internal Operations agencies and LCPS, there is also a long history of cooperation there. LCPS trucks pick up all County building garbage and deliver it to the County Landfill. The ERP process is jointly administered, as are some of our benefit plans. DIT still manages the mainframe operations for the Schools. MFS, Capital Construction and LCPS work together on the CIP and other capital planning processes.

Ratio of Full-Time Equivalents (FTEs) to Population

Attachment 1

	FY 2008			FY 2009			FY 2010			FY 2011			FY 2012		
Jurisdiction	FTEs	Population	FTEs per 1,000 Pop.	FTEs	Population	FTEs per 1,000 Pop.	FTEs	Population	FTEs per 1,000 Pop.	FTEs	Population	FTEs per 1,000 Pop.	FTEs	Population	FTEs per 1,000 Pop.
Loudoun County	3,413.91	298,420	11.44	3,438.00	304,964	11.27	3,363.37	312,311	10.77	3,363.48	318,780	10.55	3,453.72	325,000	10.63
Fairfax County*	11,861.29	1,077,000	11.01	11,931.99	1,045,104	11.42	11,627.24	1,055,580	11.02	11,457.01	1,062,513	10.78	11,919.01	1,081,726	11.02
Arlington County	3,436.69	200,615	17.13	3,394.79	195,668	17.35	3,402.69	207,627	16.39	3,832.48	210,280	18.23	3,858.13	**	n/a
Prince William County	3,586.42	388,269	9.24	3,700.72	392,900	9.42	3,570.03	398,183	8.97	3,600.96	404,934	8.89	3,645.43	411,686	8.85
City of Alexandria	2,637.50	135,591	19.45	2,664.80	132,167	20.16	2,580.70	139,966	18.44	2,540.00	**	n/a	2,543.30	**	n/a

* All funds are included in this number.
** Population data was not available.
Sources: Adopted Budget documents for each jurisdiction.
Note: FTEs listed are related to General Government but may also provide support to other areas of the respective government such as schools.

County and School Operating Budget Ratios to Gross County Product & Taxable Assessed Value ($ in Millions)

	Values		Budgets		% of Gross County Product		% of Assessed Value	
Fiscal Year	Gross County Product*	Total Taxable Assessed Value**	County General Fund Budget***	Schools Operating Budget****	County	School	County %	School %
FY 2000	5,250	19,211	125	209	2.4%	4.0%	0.7%	1.1%
FY 2001	6,044	24,045	159	252	2.6%	4.2%	0.7%	1.0%
FY 2002	7,407	30,232	208	297	2.8%	4.0%	0.7%	1.0%
FY 2003	8,399	34,489	224	356	2.7%	4.2%	0.6%	1.0%
FY 2004	10,074	39,484	238	396	2.4%	3.9%	0.6%	1.0%
FY 2005	12,073	49,087	259	469	2.1%	3.9%	0.5%	1.0%
FY 2006	13,560	65,336	292	538	2.1%	4.0%	0.4%	0.8%
FY 2007	14,141	67,127	324	614	2.3%	4.3%	0.5%	0.9%
FY 2008	15,149	67,097	354	701	2.3%	4.6%	0.5%	1.0%
FY 2009	15,897	60,851	373	756	2.3%	4.8%	0.6%	1.2%
FY 2010	16,387	58,496	362	739	2.2%	4.5%	0.6%	1.3%
FY 2011	17,683	60,161	379	718	2.1%	4.1%	0.6%	1.2%
FY 2012	19,089	62,124	398	753	2.1%	3.9%	0.6%	1.2%

* Economy.com forecasting service

** Comprehensive Annual Financial Report for 2006-2011, Prior years from FY 2012 Adopted Fiscal Plan, page 12-20; CRISR045 Personal Property Reports.

*** Page E-47 & 48; FY 2013 Proposed Fiscal Plan (History of Expenditures by Department), and same table for prior Fiscal Plans

**** Page 12-33 FY 2012 Adopted Fiscal Plan

County Budget History (Co. expenditures only)	FY 03 Adopted	FY 04 Adopted	FY 05 Adopted	FY 06 Adopted	FY 07 Adopted	FY 08 Adopted	FY 09 Adopted	FY 10 Adopted	FY 11 Adopted	FY 12 Adopted	FY 13 Proposed
General Government*	**223,676,000**	**238,251,000**	**259,222,000**	**291,507,000**	**323,609,000**	**353,598,000**	**372,765,000**	**362,091,279**	**378,597,562**	**397,862,082**	**416,669,231**
Year to Year Increase	n/a	14,575,000	20,971,000	32,285,000	32,102,000	29,989,000	19,167,000	(10,673,721)	16,506,283	19,264,520	18,807,149
Year to Year % Increase	n/a	6.5%	8.8%	12.5%	11.0%	9.3%	5.4%	-2.9%	4.6%	5.1%	4.7%

General Fund Revenue**	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Adopted	Proposed
Total Local Revenue	470,152,228	551,594,318	643,062,572	745,124,146	802,332,546	885,570,890	972,708,400	950,650,238	981,590,838	986,522,300	1,055,459,260
Commonwealth Aid	63,874,298	68,663,881	75,385,515	80,496,301	80,201,976	83,034,599	80,991,995	72,444,366	79,646,868	81,725,980	81,989,050
Federal Payments	7,505,244	10,097,729	10,186,113	15,685,586	12,940,266	11,513,450	20,506,342	26,236,946	11,379,580	8,278,770	5,331,890
Total General Fund Revenue	**541,531,770**	**630,335,928**	**728,634,199**	**841,306,033**	**895,474,788**	**980,118,939**	**1,074,206,737**	**1,049,331,550**	**1,072,617,286**	**1,076,527,050**	**1,142,780,200**
Year to Year Increase	n/a	88,804,158	98,298,271	112,671,834	54,168,755	84,644,151	94,087,798	(24,875,187)	23,285,736	3,909,764	66,253,150
Year to Year % Increase	n/a	16.4%	15.6%	15.5%	6.4%	9.5%	9.6%	-2.3%	2.2%	0.4%	6.2%
Commonwealth (% Revenue)	11.8%	10.9%	10.3%	9.6%	9.0%	8.5%	7.5%	6.9%	7.4%	7.6%	7.2%
Federal Payments (% of Revenue)	1.4%	1.6%	1.4%	1.9%	1.4%	1.2%	1.9%	2.5%	1.1%	0.8%	0.5%

School Revenue Fund History***

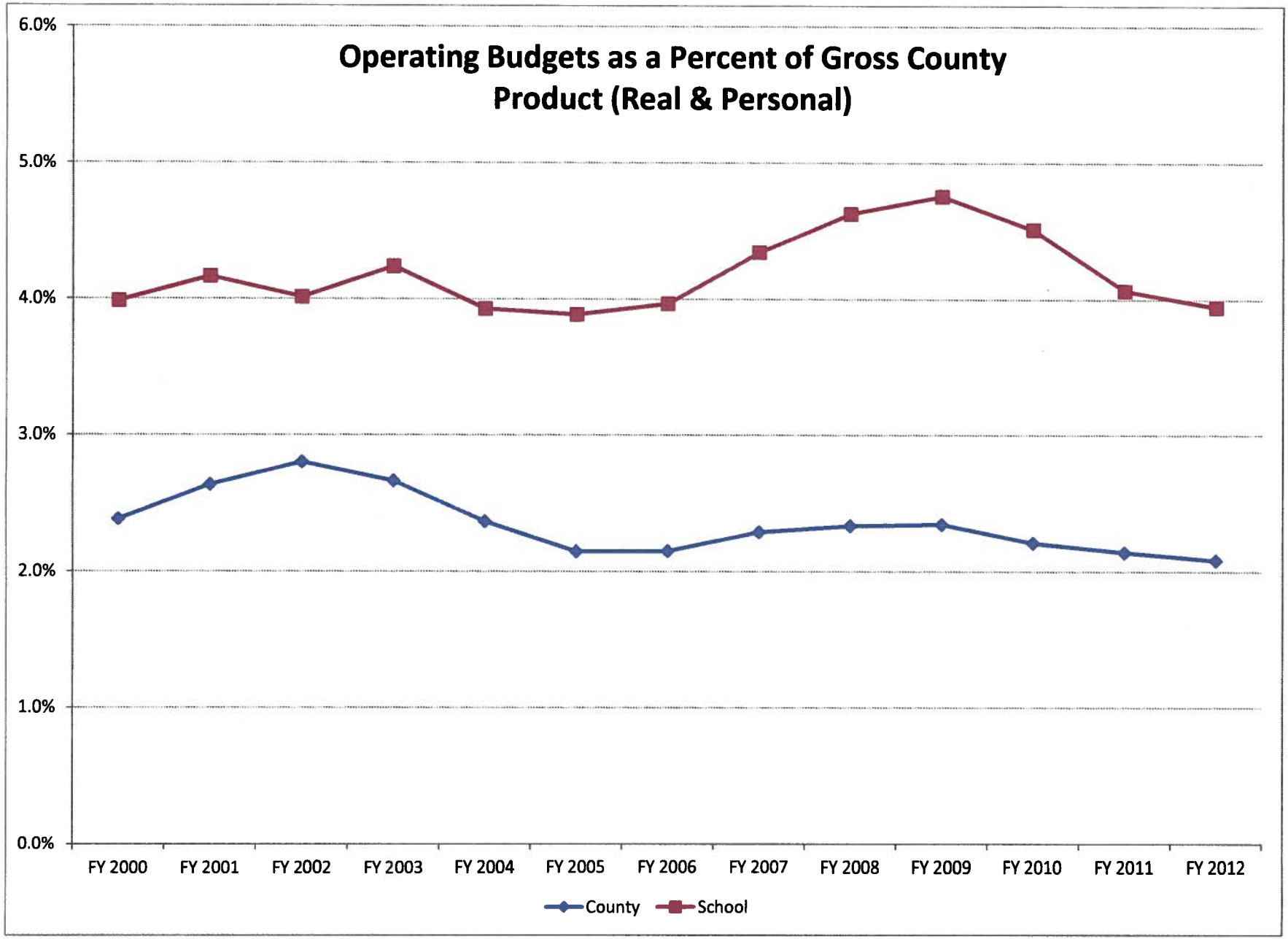
Total School Fund	FY 03 Actual	FY 04 Actual	FY 05 Actual	FY 06 Actual	FY 07 Actual	FY 08 Actual	FY 09 Actual	FY 10 Actual	FY 11 Actual	FY 12 Adopted	FY 13 Proposed
General Fund Transfer	$ 251,873,601	$ 284,126,973	$ 343,124,952	$ 407,081,000	$ 443,391,452	$ 513,204,485	$ 540,347,810	$ 520,117,547	$ 476,121,173	$ 508,025,867	$ 541,954,435
Other Local Funding	1,647,556	1,645,502	2,997,379	3,915,304	4,643,332	5,503,927	5,793,944	7,811,995	7,303,870	6,680,000	15,220,000
Commonwealth	76,905,760	91,045,126	97,390,113	113,722,222	147,112,730	157,202,514	179,443,876	168,183,563	203,018,963	221,554,075	242,181,859
Federal	6,991,869	9,208,049	7,728,927	9,997,862	6,802,831	14,166,179	14,219,081	36,522,792	30,304,978	13,686,935	14,120,000
Other Financing Sources****	9,300,000	9,900,000	9,778,000	12,466,000	2,958,453	9,959,818	10,000,000	26,363,000	8,144,000	17,000,000	19,926,000
Total Revenue	**$ 346,718,786**	**$ 395,925,650**	**$ 461,019,371**	**$ 547,182,388**	**$ 604,908,798**	**$ 700,036,923**	**$ 749,804,712**	**$ 758,998,897**	**$ 724,892,984**	**$ 766,946,877**	**$ 833,402,294**
Year to Year Increase	n/a	$ 49,206,864	$ 65,093,721	$ 86,163,017	$ 57,726,410	$ 95,128,125	$ 49,767,789	$ 9,194,185	$ (34,105,913)	$ 42,053,893	$ 66,455,417
Year to Year % Increase	n/a	14.2%	16.4%	18.7%	10.5%	15.7%	7.1%	1.2%	-4.5%	5.8%	8.7%
Commonwealth (% of Revenue)	22.2%	23.0%	21.1%	20.8%	24.3%	22.5%	23.9%	22.2%	28.0%	28.9%	29.1%
Federal Payments (% of Revenue)	2.0%	2.3%	1.7%	1.8%	1.1%	2.0%	1.9%	4.8%	4.2%	1.8%	1.7%
Real Property Tax Rate	$1.050	$1.110	$1.1075	$1.040	$0.885	$0.960	$1.140	$1.245	$1.300	$1.285	$1.270

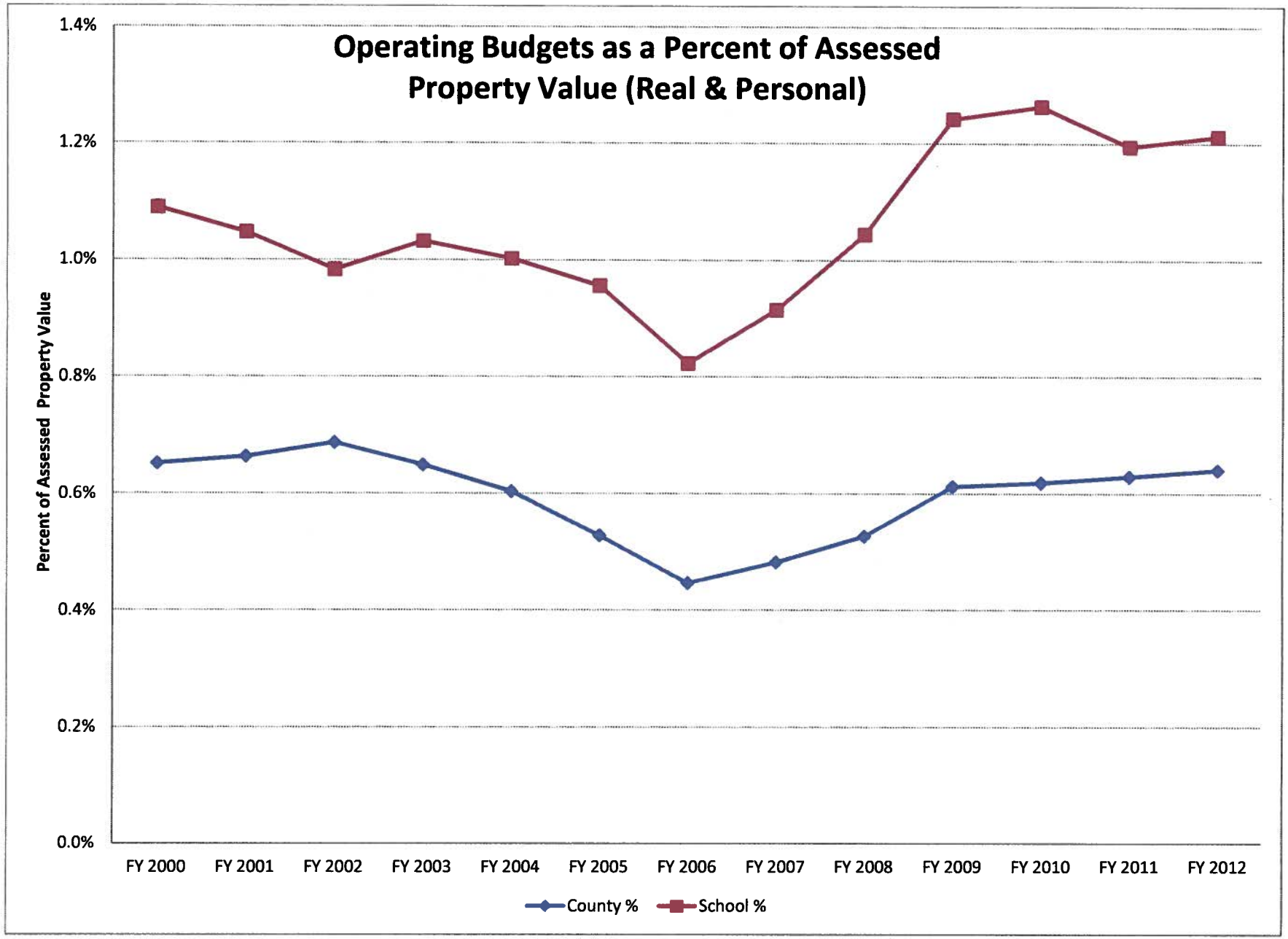
* Page E-47 & 48; FY 2013 Proposed Fiscal Plan (History of Expenditures by Department), and same table for prior Fiscal Plans,

** Page R-3 FY 2013 Proposed Fiscal Plan (General Fund Revenue Profile), and same table for prior Fiscal Plans

*** Adopted Fiscal Plans, for FY 03 - FY 10; for FY 11 - FY 13 data is from Superindent's Proposed Budget; OPEB adjustment (added to General Fund Transfer) for FY09-FY1: 3,500,000 7,000,000 10,500,000 14,000,000

**** School Fund Other Financing Sources in FY 2010 includes $6.3 mil for school bus and vehicle leases and $20 mil use of fund balance


Operating Budgets as a Percent of Gross County Product (Real & Personal)
6.0%
5.0%
4.0%
3.0%
2.0%
1.0%
0.0%
FY 2000
FY 2001
FY 2002
FY 2003
FY 2004
FY 2005
FY 2006
FY 2007
FY 2008
FY 2009
FY 2010
FY 2011
FY 2012
County
School


Operating Budgets as a Percent of Assessed Property Value (Real & Personal)
Percent of Assessed Property Value
1.4%
1.2%
1.0%
0.8%
0.6%
0.4%
0.2%
0.0%
FY 2000
FY 2001
FY 2002
FY 2003
FY 2004
FY 2005
FY 2006
FY 2007
FY 2008
FY 2009
FY 2010
FY 2011
FY 2012
County %
School %

Loudoun County, Virginia
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Department of Management and Financial Services
1 Harrison Street, S.E., 4th Floor, MS #41
P.O. Box 7000, Leesburg, VA 20177-7000
Telephone (703) 777-0563 • Fax (703) 777-0567

DATE: April 4, 2012

TO: Government Reform Commission

FROM: Mark D. Adams, Director

RE: Question Regarding Ratio of LCPS FTEs to School-Aged Population

CC: Government Reform Commission, Tim Hemstreet, Linda Neri, Candy deButts, Charles Yudd, John Sandy, Leslie Hansbarger, Julie Grandfield, Danny Davis, Anna Nissinen, Ben Mays, Mark Lauzier, Budget Staff

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The following is the Budget Office's response to a question posed by Mr. Hamberger:

Question #2- Contrast this to LCPS. Since 1998 LCPS has increased its staff by about 50% relative to population. In 1998 there were 20 LCPS staff per 1,000 residents. In 2012 there were about 30 per 1,000 residents. How does this match up to the school-aged population? Is the number of staff relatively fixed compared to the school aged population or not? Can you advise on that?

Data on school aged children (age 5 to 19) can be provided through 2010, the last year population by age is available from the U.S. Census Bureau. Providing data through 2012 would require special analysis and forecasting by staff.

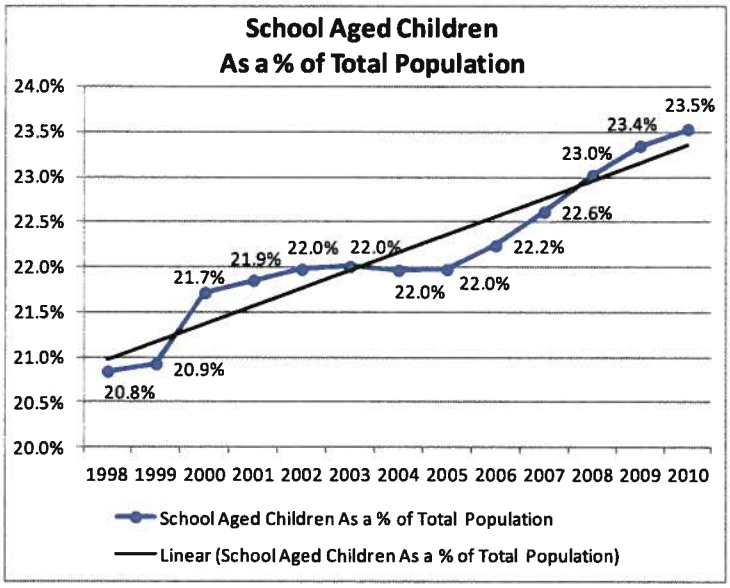
The percentage of Loudoun's population that is school aged has been trending upward since 1998. In 1998, 20.8% of Loudoun's population was school aged. In 2010, 23.5% of Loudoun's population was school aged.

Between 1998 and 2010, the number of school staff per thousand school aged children increased at a faster pace than the number of children. In 1998 the number of school staff per 1,000 school aged children was 102. In 2010 the number of school staff per 1,000 school aged children was 124.

In 1998 the number of school staff per 1,000 residents was 21 and in 2010 it was 29.

Data showing trends in the school age population, school enrollment, school Full Time Equivalent (FTE) employees and associated ratios are provided below.

	School Aged Children as a % of Total Population
998	20.8%
1999	20.9%
2000	21.7%
2001	21.9%
2002	22.0%
2003	22.0%
2004	22.0%
2005	22.0%
2006	22.2%
2007	22.6%
2008	23.0%
2009	23.4%
2010	23.5%



Sources: U.S Census Bureau, 2000 and 2010 Census; U.S. Census Bureau, *Intercensal Time Series Estimates 2000 to 2010*, September 2011; and U.S. Census Bureau, *Intercensal Time Series Estimates* 1990 to 1999, August 30, 2000.

Fiscal Year	LCPS FTEs [1]		School Aged Children [2]	Ratio FTEs to School Aged Children		LCPS School Enrollment [3]	Ratio FTEs to School Enrollment
1998	3,010		29,546	102		23,782	127
1999	3,314		32,726	101		26,091	127
2000	3,801		36,836	103		28,787	132
2001	4,253		41,167	103		31,804	134
2002	4,852		45,286	107		34,589	140
2003	5,533		48,877	113		37,532	147
2004	6,026		52,751	114		40,751	148
2005	6,779		56,952	119		44,014	154
2006	7,525		61,516	122		47,361	159
2007	7,999		65,458	122		50,478	158
2008	8,526		68,718	124		54,047	158
2009	8,951		71,218	126		57,009	157
2010	9,105		73,504	124		60,096	152

Sources:

(1) Loudoun County Public Schools FTEs were derived from the Loudoun County Public Schools Appropriated Budgets from FY 1998 to FY 2010. These values are combined from the fund level detail found in the School Board Funds section of each budget year under Operating Fund and Food Service Fund. The Central Vehicle Fund was also available separately for Fiscal Years 1998, 2009, and 2010 (available in the Other Funds Section), but the intervening years did not break out FTEs for this fund. The Central Vehicle Fund had only 68 FTEs in FY 2010.

(2) U.S. Census Bureau, *Intercensal Time Series Estimates 1990 to 1999,* August 30, 2000 adjusted using Loudoun County *2005 Annual Growth Summary*, Table A1-b population; U.S. Census Bureau, 2000 and 2010 Census; U.S. Census Bureau, *Intercensal Time Series Estimates 2000 to 2010*, September 2011, adjusted using Loudoun County Department of Management and Financial Services, estimates series, September 19, 2011.

(3) Loudoun County Public Schools, *Superintendent's Recommended FY 2013 - FY 2018 Capital Improvement Program,* Loudoun County Public Schools: September 30 Enrollment History table (Page 103), February 7, 2012.

Why So Many Non-Teaching Employees in Pittsburgh Schools?

Written by Allegheny Institute
Monday, 30 August 2010 15:18

A pop quiz as another school year gets underway: what is the student-to-teacher ratio in the Pittsburgh Public Schools (PPS)? According to the most recent audited data (2009) the District shows 27,922 students and 2,315 teachers giving a ratio of 12 to 1. That's only slightly changed from 2000 when the District had 38,560 students and 3,377 teachers for an 11.4 to 1 student ratio.

Now another question: how many students are there for each non-teaching employee-administrators and secretaries, principals and janitors, cafeteria workers and librarians? In 2009 there were 2,570 non-teacher personnel putting the ratio at 10.8 students per employee. Back in 2000 there were 20 students per non-teaching employee. What has happened to cut the ratio in half?

There are two principal factors driving the massive change in the student-to-non-teacher ratio. First, the administration category, which includes administrators and managers, legal services, and clerical and other non-professionals, grew 63 percent from 572 employees in 2000 to 934 in 2009. Most of this growth was attributable to the clerical and non-professional classification which doubled in size from 405 to 826. All told, the ratio of administrative employees to students more than doubled over the decade.

Employee Composition in the Pittsburgh Schools

Employee Category	Students per employee in 2000	Students per employee in 2009
Teachers	11.4	12.1
Non-Teachers	20	10.8
Non-Teacher Components		
Administration	*67.4*	*29.9*
Instruction not counting Teachers	*126*	*33*
Pupil Affairs	*187*	*138*
Health Services	*896*	*698*
Operations and Maintenance	*69.7*	*71.7*
Food Service	*157.3*	*174.5*

Second, the category of instruction not counting teachers (principals, supervisors and assistant principals, librarians and support staff) grew by 176 percent from 306 employees to 846 employees. Here's why: the category now has close to 700 professional and support staff that were not listed as a separate classification in 2000. The ratio of instruction employees to students has nearly quadrupled resulting in the decline of student-to-employee ratio from 126 to 33.

Doubling the ratio of all non-teacher employees to students over the past ten years while the teacher ratio stayed level and several schools were closed ought to raise some serious questions. It certainly goes a long way toward explaining why the District's per student costs continue to spiral upward. Even the most strident defenders of the District must wonder what can possibly explain the enormous growth in non-teaching personnel. If the student-teacher ratio had fallen 50 percent over the period and each teacher had only five or six students a lot of eyebrows would certainly have been raised. But the startling rise in "hidden" back office and student support functions has gone virtually unnoticed.

How does Pittsburgh's non-teaching employee ratio compare to other school districts? Last year *(Policy Brief Volume 9, Number 48)* we looked at some other districts to see their non-teaching personnel count in light of the school district consolidation plans that were being discussed by the General Assembly at the time. We found that, on a student-to-employee basis, several districts were higher than PPS' student-to-non-teacher ratio including Allegheny Valley (13.4), North Allegheny (17.6), and Bethel Park (14.1).

While it might be claimed that all the changes brought about for the PPS in recent years-school closings and realignments, new academies, pay for performance for principals and some teachers-did not translate into more bureaucracy, bureaucratic growth appears to have been the order of the day. We know that there are a myriad of programs aimed at improving the fortunes of the District, many of them requiring employees to oversee them.

There are significant and long-lasting effects stemming from the growth in non-teaching personnel for

taxpayers. Keep in mind that the PPS budget ($527 million) is larger than the budget for the City of Pittsburgh and half of that amount is related to employee salaries and benefits. The District levies real estate taxes, takes the lion's share of the City's very high 3 percent earned income tax and receives over $200 million from state and Federal sources. If the non-teacher ratio had stayed at its 2000 level (20 to 1), taxpayers of the City would currently be supporting close to 1,100 fewer employees, with perhaps as much as $50 million less in personnel costs and painting quite a different picture for local and state taxes and for long-term costs associated with pensions and health benefits.

The board and the superintendent of the District should give taxpayers an adequate explanation for the massive increase in non-teaching personnel, the costs associated with the increase, and in particular define the benefits derived from all additional employees in terms of educational performance. In light of the ongoing academic fiasco in most of the City's high schools, these will not be easy tasks for the schools' managers.

Employment in public schools and the student-to-employee ratio

Through the stampede of the baby-boom generation entering and leaving the school systems and the stormy recessionary periods, employment in local government education surged over the 1964–93 period

Teresa L. Morisi

Employment in public schools has doubled since 1964. As a result, the student-to-employee ratio fell from 13.3 in 1964 to 6.4 in 1990.[1] Schools had fared well even in recessionary periods, when the student-to-employee ratio continued to drop or at least held steady. In the most recent recession, however, the student-to-employee ratio rose for the first time in the history of the data series. By 1993, the student-to-employee ratio returned to the 1990 level. It is unclear whether the ratio will decline further, as tightly constrained Federal, State, and local budgets will be forced to accommodate a rising student population in the coming years.

Enrollment linked to 'baby-boomers'

Enrollment in public elementary and secondary schools grew steadily from 1964, peaking at 46 million in 1971. The rise was caused by the "baby-boom generation" (persons born during the 1946–62 period) entering the public school system.[2] As the members of the baby-boom generation graduated or left school, enrollment fell steadily for the next 13 years — a total decline of 7 million students. Enrollment again began to climb in 1984 when the children of those born during the baby-boom period began attending school. Enrollment has risen by 4 million since 1984, but still remains 3 million below the 1971 peak level. (See chart 1 and table 1.)

Teresa L. Morisi is an economist in the Office of Employment and Unemployment Statistics, Bureau of Labor Statistics.

Trends in total employment

The surge in public school employment over the 1964–93 period occurred despite four small annual declines (1978, and the 1981–83 period), falling enrollment, and the recessions.

Employment growth during falling enrollment. Employment in public schools rose in all but 4 years between 1972 and 1984, even though enrollment fell by 7 million during the period. The student-to-employee ratio continued to decline in 1978, despite the fact that public school employment fell for the first time since 1964. Employment again declined in 1981 and through 1983, but the student-to-employee ratio remained steady.

By 1982, the yearly enrollment declines began to lessen in magnitude. In 1984, enrollment declined only slightly and employment returned to its growth trend; as a result, the student-to-employee ratio resumed its decline.

Employment during recessions. Of the five recessions that occurred between 1964 and 1993,[3] only the last two recessions appeared to have any effect on local government education employment. (See box.) During the 1981–82 recession, employment declined both years, with a spillover effect of a small decline in 1983. The student-to-employee ratio remained constant during this recession.

However, the 1990–91 recession had a more serious effect on employment in local government education. Between 1989 and 1991, enrollment surged by 1.5 million; growth of this magnitude had not occurred since the late 1960's. Although employment did not decline as it had in the previous recessions, the number of employees added in 1991 was the smallest since the decrease in 1983. This growth was not large enough to offset the gain in the number of students; therefore, the student-to-employee ratio increased for the first time in the history of the series.

Despite the fact that the recession had ended over a year earlier, hiring in 1992 was just enough to allow the student-to-employee ratio to remain unchanged. This sluggishness indicates that local governments, like much of the private sector, recovered slowly from the latest recession. By 1993, the student-to-employee ratio returned to the 1990 level. (See chart 2.) It is unclear whether the trend of a declining ratio will resume as government revenues improve. The student-to-employee ratio may be at such a low level that further declines are not possible.

Teachers and other staff

Data from the National Center for Education Statistics show a growth of 860,000 full-time equivalent teaching positions over the 1964–93 period. The student-to-teacher ratio displayed the same trend as the student-to-employee ratio, although the rate of decline was less sharp. In the late 1970's the declines in enrollment finally caught up with teachers as their number dropped by 71,000 between 1975 and 1981. Since 1981, teaching staffs have grown by 380,000.

Although teachers have continued to constitute the largest share of education staff, their share of full-time equivalent education positions declined from 60 percent in 1969 to 53 percent in 1990.[4] Over this period, the number of teaching positions grew by 16 percent. This was dwarfed by the 85-percent rise in teacher aide positions, the largest percentage increase among education staff.[5] The number of guidance counselors grew 40 percent between 1969 and 1990, while the number of principals and assistants grew 29 percent. Only librarian positions experienced slower growth than teaching positions. (See chart 3.)

What caused the employment growth?

One of the most important factors affecting employment growth in public schools has been the advent of the Federal Government assuming a larger role in education. Beginning in 1965, the Federal Government began spending millions of dollars on education programs for students with special needs in elementary and secondary schools. Much of the money has gone toward the hiring of specialists and aides to staff these programs. Programs for remedial and bilingual education and for disabled students have contributed the most to the growth in the number of education employees. Each program has its own staff and curriculum, and many students participate in more than one program.

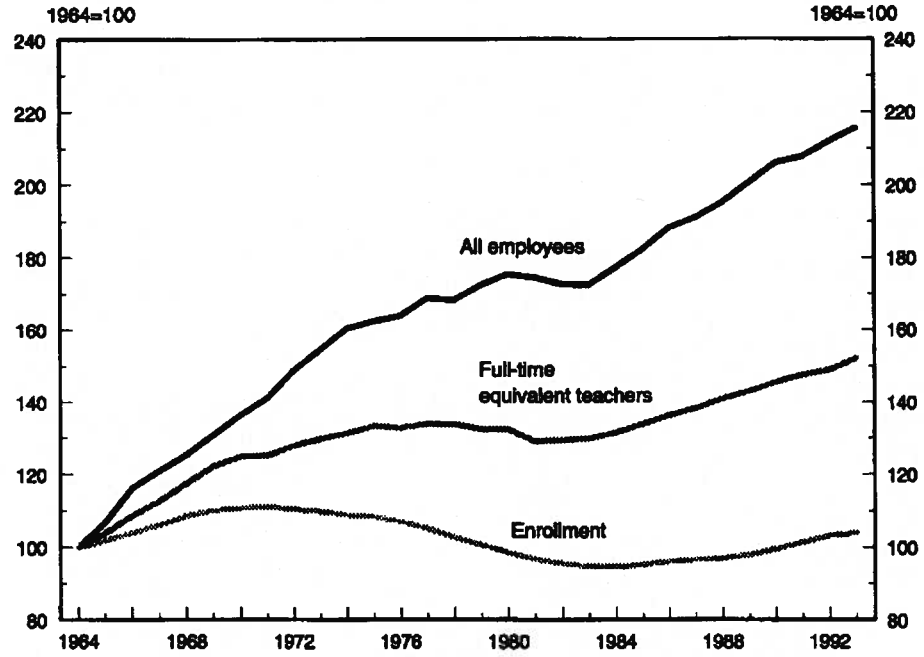
Remedial education. The first, and by far the largest, Federal program for elementary and secondary schools was Title I/Chapter 1 of the Elementary and Secondary Education Act of 1965. Chapter 1 provides remedial services to disadvantaged students; outside the classroom, the students are tutored by instructional staff. More than 90 percent of the Nation's school districts receive Chapter 1 support. Of the 172,000 positions funded by Chapter 1 in the 1991–92 school year, teacher aides accounted for 41 percent of positions, close to the 45-percent share held by teachers.[6] Schools have an incentive to hire teacher aides for these positions because their salaries are lower than those for teachers; indeed, a criticism some make of the program is that aides

Data sources

The student-to-employee ratio is calculated by dividing autumn public elementary and secondary school enrollment by November employment in local government education. Data on fall public school enrollment are actual counts published by the National Center for Education Statistics, U.S. Department of Education. Data on local government education employment is from the Bureau of Labor Statistics Current Employment Statistics program. The November employment data are used, because that is the last month of employment buildup related to a new school year.

Employment data include both the full-time and part-time workers on school payrolls. Thus, clerical, cafeteria, and custodial workers are included, as well as teachers and administrators. BLS counts the number of employees who receive wages during the pay period that includes the 12th of the month. Voluntary workers are not counted. In this analysis, trends of total employment in public schools are augmented with the data on education staff from the National Center for Education Statistics. However, because data from the National Center for Education Statistics are adjusted to full-time equivalents, they are not directly comparable to Current Employment Statistics data. Therefore, data from the two sources are analyzed separately.

Chart 1. **Index of employment and student enrollment in local government education, 1964–93**



SOURCE: Enrollment and teacher data are from the National Center for Education Statistics.

with little training are being used to instruct the neediest students.[7]

Some of the studies analyzing the effects of Chapter 1 instruction on achievement have been positive and some have been negative. The general agreement is that although disadvantaged students are helped by this program, more could be done. In 1992, a study by the Commission on Chapter 1 concluded that the practice of pulling students out of class for special instruction was no longer adequate; that the regular curriculum needed to be upgraded in order for special needs students to acquire more advanced skills than the basic skills they were currently receiving.[8] The commission recommended that schools in poorer districts receive more Chapter 1 funding, and that incentives be created to ensure that schools improve the academic performance of needy students.[9]

Bilingual instruction. The Federal Government first provided funds for bilingual education in 1968 with Title VII of the Elementary and Secondary Education Act of 1965; by 1974, Congress specified that the money be spent on native language instruction.[10] Consequently, schools had to hire certified bilingual teachers because English could no longer be the primary language of instruction. As immigration has increased, so has the demand for bilingual instruction. Studies on the effects of native language instruction have been contradictory; advocates against such instruction argue that students who mainly receive instruction in their native languages do not learn enough English to later succeed as adults.[11]

Education of disabled children. Funding for educating disabled children was first provided in 1966; legislation and court decisions culminated in the Education for All Handicapped Act of 1975, later renamed the Individuals with Disabilities Education Act. It requires that school districts provide a free, appropriate public education for handicapped and learning disabled students. The schools must hire not only special education teachers and aides, but also pay for "related services," which includes specially trained personnel.[12] In 1977, children who did not have a physical handicap but had a specific learning disability were declared eligible for these services under the Individuals with Disabilities Education Act; as a result, the share of children with learning disabilities rose from 22 percent of participants in this program during the 1976–77 school year to 44 percent in 1989–90.[13]

In recent years, the trend has been to place severely disabled children into regular classrooms. This usually requires the presence of a special education teacher or aide in the classroom along with the regular teacher. The increased practice of putting disabled children into regular

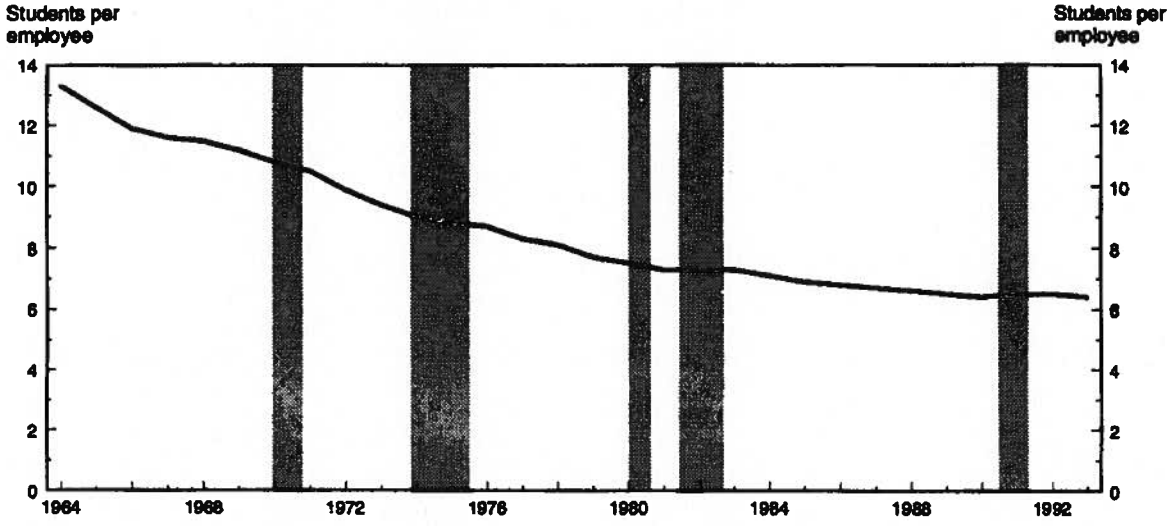
Table 1. **Student enrollment, all employees and teachers in local government education, and student-to-employee and student-to-teacher ratios, 1964–93**

[Numbers in thousands]

Year	Student enrollment in public schools grades K-12, fall[1]		Employment of all workers in local government education, November		Employment of full-time equivalent teachers[1]		Student-to-employee ratio	Student-to-teacher ratio
	Level	Change	Level	Change	Number	Change		
1964	41,416	—	3,122	—	1,648	—	13.3	25.1
1965	42,173	757	3,334	212	1,710	62	12.6	24.7
1966	43,039	866	3,626	292	1,789	79	11.9	24.1
1967	43,891	852	3,776	150	1,855	66	11.6	23.7
1968	44,944	1,053	3,913	137	1,936	81	11.5	23.2
1969	45,550	606	4,085	172	2,016	80	11.2	22.6
1970	45,894	344	4,257	172	2,059	43	10.8	22.3
1971	46,071	177	4,404	147	2,063	4	10.5	22.3
1972	45,726	–345	4,641	237	2,106	43	9.9	21.7
1973	45,444	–282	4,825	184	2,136	30	9.4	21.3
1974	45,073	–371	5,008	183	2,165	29	9.0	20.8
1975	44,819	–254	5,071	63	2,198	33	8.8	20.4
1976	44,311	–508	5,120	49	2,189	–9	8.7	20.2
1977	43,577	–734	5,269	149	2,209	20	8.3	19.7
1978	42,551	–1,026	5,259	–10	2,207	–2	8.1	19.3
1979	41,651	–900	5,389	130	2,185	–22	7.7	19.1
1980	40,877	–774	5,473	84	2,185	0	7.5	18.7
1981	40,044	–833	5,452	–21	2,127	–58	7.3	18.8
1982	39,566	–478	5,392	–60	2,133	6	7.3	18.5
1983	39,252	–314	5,388	–4	2,139	6	7.3	18.4
1984	39,208	–44	5,536	148	2,168	29	7.1	18.1
1985	39,422	214	5,689	153	2,206	38	6.9	17.9
1986	39,753	331	5,870	181	2,244	38	6.8	17.7
1987	40,008	255	5,960	90	2,279	35	6.7	17.6
1988	40,189	181	6,092	132	2,323	44	6.6	17.3
1989	40,526	337	6,263	171	2,357	34	6.5	17.2
1990	41,217	691	6,430	167	2,396	41	6.4	17.2
1991	[2]42,000	783	6,484	54	[2]2,432	34	[2]6.5	[2]17.3
1992	[2]42,731	731	6,612	128	[2]2,454	22	[2]6.5	[2]17.4
1993	[3]43,353	622	6,728	116	[2]2,507	53	[3]6.4	[3]17.3

[1] Based on data from the National Center for Education Statistics. [2] Preliminary. [3] Estimated.

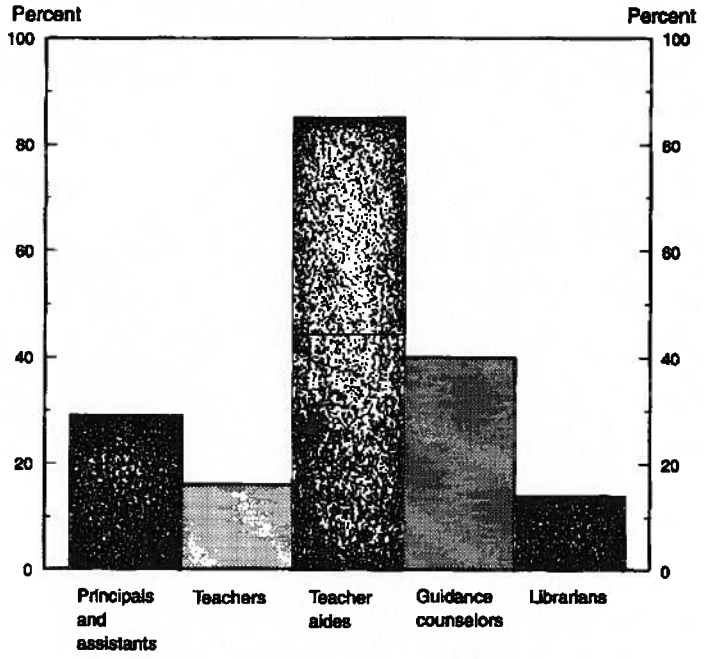
Chart 2. **Student-to-employee ratio in local government education, 1964–93**



NOTE: Ratio is calculated by dividing fall public school enrollment by November employment in local government education. Shaded areas denote recessions as identified by the National Bureau of Economic Research.

SOURCE: Enrollment data are published by the National Center for Education Statistics.

Chart 3. Growth of full-time equivalent education staff in public schools, 1969–90



SOURCE: National Center for Education Statistics.

classrooms has therefore contributed to the demand for special education staff.

Other trends. Employment growth in public schools is also positively influenced by:

- Shifts toward smaller classes, which are believed to be beneficial for learning. Many States have passed laws mandating smaller class sizes.
- Establishment of vocational training centers for high school students and "magnet" schools that offer specialized instruction.
- Increases in the amount of money spent per pupil. The current expenditure per student rose from $2,162 in the 1965–66 school year to $5,054 (estimated) in 1992–93 (1991–92 dollars).[14] Disposable income has risen; at the same time there has been a decrease in the ratio of the number of students to the population as a whole.[15] This allows more money to be spread among fewer pupils.

Will the surge continue?

Public school enrollment is projected to grow throughout the 1990's; by 1998, enrollment is projected to surpass the 1971 peak.[16] This surge in enrollment will require State and local governments to hire more teachers and other staff just to maintain the current student-to-employee ratio.

Even if there are more Federal funds for remedial, bilingual, and special education programs, State and local budgets will likely be strained by the increase in school-age children. As a result, there may not be enough money available to allow the student-to-employee ratio to decline further. Thus, the recent pattern of a stable, or even increasing student-to-employee ratio in public education, established since 1990, may remain for some time. ❑

Footnotes

[1] Data from 1964 forward are used because enrollment data prior to 1964 encompassed the entire school year. For 1964 and later years, enrollment figures are for fall only and thus can be compared with fall employment data.

[2] National Center for Education Statistics, *Digest of Education Statistics 1992*, NCES 92–097 (Washington, DC, National Center for Education Statistics, October 1992), p.1.

[3] These recessionary periods, as identified by the National Bureau of Economic Research, are: December 1969–November 1970; November 1973–March 1975; January 1980–July 1980; July 1981–November 1982; and July 1990–March 1991.

[4] *Digest of Education Statistics 1992*, table 78.

[5] Data on support staff and school administrative staff are not comparable prior to 1984. Therefore, they are not used in this comparison.

[6] Chapter 1 office, U.S. Department of Education, Washington, DC.

[7] *Who is Teaching Our Children: A Look at the Use of Aides in Chapter 1*, Issue Paper (International Reading Association, January 1994).

[8] Rochelle Stanfield, "A Blistering Report Card," *Washington Update: Policy and Politics in Brief* (Washington, DC, The National Journal, 1992), p. 2899.

[9] Mary Jordan, "Panel Says Poor Children Disserved by School Aid," *The Washington Post*, Dec. 11, 1992, p. A10.

[10] Edward B. Fiske, "The Controversy Over Bilingual Education in America's Schools; One Language or Two?" *The New York Times*, Nov. 10, 1985, p. 1.

[11] Marilyn Elias, "Kids' Best Interests the Crux of Bilingual Education Debate," *USA Today*, July 21, 1993, p. 7D.

[12] Eileen M. Gardner, "The Growth of the Federal Role in Education," *Critical Issues: A New Agenda for Education* (Washington, DC, The Heritage Foundation, 1985), p. 27.

[13] *Digest of Education Statistics 1992*, table 50.

[14] *Digest of Education Statistics 1992*, table 156.

[15] National Center for Education Statistics, *Projections of Education Statistics to 2002*, NCES 91–490 (Washington, DC, National Center for Education Statistics, December 1991), p. 77.

[16] *Projections of Education Statistics to 2002*, table 1.